Cedar River Instream Flow Commission
Final Minutes

SPU Water Quality Lab

September 2nd, 2009

Organizations/Members Present:
- Seattle Public Utilities (Tom Fox, Karl Burton, Rand Little)
- King County Dept. of Natural Resources and Parks (Steve Hirschey)
- U.S. Army Corps of Engineers (Larry Schick, Lynne Melder by phone)
- NOAA Fisheries (Tom Sibley)

I. **Call to Order:** Tom Fox called the meeting to order at 9:45 AM.

II. **Approval of Agenda:** Approved as presented.

III. **Approval of Draft Minutes:** Approval of August Draft Minutes will be deferred to the next meeting due to an e-mail malfunction that prevented the draft minutes from reaching IFC members.

IV. **News and Notes:** Steve reported that the County had declared a flood emergency situation which is primarily a function of the circumstances on the Green River (new maximum pool elevation increasing risk of flooding) and will result in accelerated levy reinforcement and heightening with an increased awareness regarding flood control.

V. **Real Time Water Management:**

Hydrologic Conditions for Tolt and Cedar: Tom reported that rainfall in the Cedar River watershed was just above average for the month of August whereas, rainfall in the Tolt Basin was just below average. Masonry pool has split from Chester Morse Lake and the pool is dropping. Tom expects the pool to continue to drop through mid-September. Currently, Chester Morse Reservoir is registering at 1550.2' which is close to the long term average but below the elevation observed in 2008 for this date. The 8-week running average for inflows to Chester Morse Reservoir is registering in the 10 percentile which indicates very dry conditions in the basin. Tom said that SPU is meeting its voluntary target of 20 cfs above and beyond minimum flows this summer. He expects to continue to provide the voluntary

supplement through September 15. Minimum flows increase to 133 cfs on September 16th. Tom reminded the IFC that, in order for SPU to provide high normals, the reservoir elevation needs to be above 1541.5 and the 30- and 15-day averages for inflows need to be above the switching thresholds of 31 cfs and 32 cfs respecitively.

The graph showing actual daily flows to estimated unregulated flows below Landsburg indicated that actual flows were very close to what would have occurred naturally in August. There was a downramping exceedance in August when a stage drop of 1.2" per hour occurred. This was caused by the clearing of a debris jam from the fish ladder opening that caused a drop in forebay elevation. The downstream passage gate was in level mode and when the forebay dropped and the gate raised to increase the forebay elevation, it caused a drop in flow below Landsburg.

Consumption peaked in early August at 241 MGD. The peak coincided with the record high temperatures and then dropped as the air temperature declined. Tom pointed out that, when temperatures reached these high levels in the 1970s, associated water consumption peaked at 350 MGD. Total diversion in 2009 will be higher than 2008 but well below allowable levels in the agreement between Seattle and the Muckleshoot Tribe. Currently, SPU is drawing 35% of water diversions from the Tolt. The Tolt Reservoir was providing 42% of the water diversions during the peak demand period in August. If conditions remain dry, SPU will again start placing greater emphasis on the Tolt for municipal water supply.

SEAFM output indicates that a one in twenty dry year will bring reservoir elevations close to 1541 but all other scenarios will allow SPU to avoid mobilizing the pump plants. When the one in ten dry scenario is projected to reach elevation 1541 feet, SPU will begin mobilizing to use the pump plants. The mobilization period is 60 days.

Lake Washington: Lynne reported that the current lake elevation was 20.5 feet and the Corps is operating on the 20% reliability curve. Monitoring of the diffuser wells has detected no trapped or dead fish. Salinity is currently below the Dept. of Ecology water quality standards and the Corps will be using false lockages in the large locks to refresh dissolved oxygen and lower salinity just upstream of the locks. False lockages occur when the corps performs a lockage even though there are no boats to move through the locks. Smolt flumes will be removed by mid-September.

***Fish Update*:** Rand reported that the estimated number of sockeye through the locks this year was about 22,000 fish, a record low. On August 19th, the estimate for passed Chinook at the Locks was 3,500 fish, only 60% of average for this date. Karl reported that he and Larry Lowe from WDFW had performed the 1st Chinook

redd and carcass survey on Thursday, August 27th. No anadromous fish or redds were observed. Rand mentioned that fish passage at Landsburg would move to sorting mode on September 8. In addition, the sockeye broodstock weir will be installed on September 10th.

Forecasts and Water Supply Outlook: Larry reported that this summer had the sixth driest June, July, August period on record as measured at SeaTac. The storm expected this weekend will bring the most rain we've seen since May. Larry expects between 1/3 and 2/3 inches of rain and the snow level to drop to 6000 feet. After the weekend storm, the weather will improve and a dry period is expected for next week. Larry noted that this year is expected to be a moderate or moderate to strong El Nino year which means the probability of big floods is lowered slightly compared to average.

VI. Supplemental Studies

IHA Study: Rand passed out copies of summary tables describing the IHA and EFC parameters as well as a packet with graphical portrayals of the initial IHA output for the Cedar River. The IFC reviewed the descriptions and output and discussed the relevance of some of the parameters for the Cedar analysis. The group decided to first focus their efforts on the initial 34 IHA parameters. Rand asked the IFC to further study the initial IHA parameter descriptions and the previously distributed graphs of the initial IHA output using the Cedar pre- and post-development flows. He requested that, at the October meeting, everyone be prepared to discuss what they believe to be the IHA parameters of most relevance for further assessment of Cedar River flows.

VII. Agenda Items for Next Meeting:

1) Decide which IHA parameters are of most interest to the IFC
2) Fall high normal flow discussion.

VIII. Meeting adjourned at 12:15 PM